

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA**

MIRA ADVANCED TECHNOLOGY  
SYSTEMS, INC.,

Plaintiff,

v.

GOOGLE LLC.,

Defendant.

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CIVIL ACTION NO. \_\_\_\_\_

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Mira Advanced Technology Systems, Inc. (“Mira”) for its Complaint with Jury Demand for patent infringement against defendant, Google LLC. (“Google”), alleges based on information and belief, as follows:

**THE PARTIES**

1. Plaintiff Mira is a West Virginia corporation, with its principal place of business in West Virginia.

2. On Information and belief, Defendant Google is a Delaware corporation having a principal place of business in Mountain View, California.

**NATURE OF THE ACTION**

3. This is a civil action for infringement of the United States Patent No. 10,594,854 (the “Asserted Patent” or the “854 patent”). This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

4. Google makes, uses, imports, offers to sell, and sells in the United States, including this District, Google Keep software application (the “Accused Software Product”), which, when running and being operated in a smart communication device (e.g., a smart phone) equipped with on-

board GPS module, causes the smart communication device to perform the method claimed in the Asserted Patent described herein, including claims 1, 3, 5 and 7 (hereinafter “the Asserted Claims”) thereof.

### **JURISDICTION AND VENUE**

5. This Court has subject matter jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has personal jurisdiction over Google in this action. First, Google committed acts of infringement in this District. Google placed, and continues to place, the Accused Software Product into the stream of commerce, through established distribution channels, with the knowledge and understanding that the Accused Software Product is used in this District. This causes injury to Mira. Second, on information and belief, Google derives substantial revenue from the distribution of the Accused Software Product within this District and through interstate commerce. Accordingly, Google has committed acts within this District giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Google would not offend traditional notions of fair play and substantial justice.

7. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400 (b). Google is registered to do business in Virginia. On information and belief, Google has transacted business in this District and has committed acts of direct and indirect infringement in this District. Google has a regular and established place of business in this District located at 1900 Reston Metro Plaza #16, Reston, VA 20190.

**THE PATENT-IN-SUIT**

8. The Asserted Patent, United States Patent No. 10,594,854, entitled “Location Based Personal Organizer,” was duly and legally issued on March 17, 2020, by the United States Patent and Trademark Office. A copy of the Asserted Patent is attached hereto as Exhibit A.

9. Mira is the owner of all right, title, and interest of the Asserted Patent.

10. Each claim of the Asserted Patent is valid and enforceable.

11. The Asserted Patent is generally related to a location-based reminder function performed by a smart communication device with display, such as a smartphone, that is equipped with on-board GPS module. Location-based reminder, as is used herein, refers to a reminder (e.g. in the form of a reminder text) being displayed, or otherwise alerted, to a user in real-time when the user’s contemporaneous physical geographical location, as captured by the user’s communication device through its on-board GPS module, matches with a set of GPS coordinates of a physical geographical location (associated with, e.g., the reminder text) *pre-set* in the volatile or non-volatile memory of the communication device.

12. An above-described location-based reminder function is known to operate on one or more pre-set location-based reminder entries (displayed in a communication device). For each such a reminder entry, a set of GPS coordinates of an associated (intended)<sup>1</sup> physical geographical location (associated with, e.g., a reminder text inputted in and for the same reminder entry by the user) *must*

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<sup>1</sup> The geographical location associated with the respective reminder text (in and for the reminder entry) was the geographical location *intended* by the user to trigger the display of, e.g., the respective reminder text in real-time by the location-based reminder function when a contemporaneous location of the communication device (and therefore the user) matches with the pre-set geographical location. Thereafter, the terms “the associated location” and “the intended location” may be used interchangeably to refer to that “the intended location” becomes “the associated location” after the Necessary GPS-setting Element (as to the displayed reminder entry) is materialized.

*be* pre-set (i.e., pre-stored in a volatile or non-volatile memory of the communication device) to be associated with the respective reminder text before the reminder function (as to that reminder entry) can and will be achieved. That is, one *necessary* element of a scheme that achieves the above-described reminder function on a respective location-based reminder entry is *pre-setting* a set of GPS coordinates of an associated location (associated with the respective reminder text) as to a host reminder entry. Hereinafter, this necessary element would be referred to as “the Necessary GPS-Setting Element.”

13. The Asserted Patent is particularly related to the Necessary GPS-Setting Element of a location-based reminder method/scheme (i.e., a method/scheme that achieves a location-based reminder function on a pre-set location-based reminder entry). More specifically, the Asserted Patent claims a location-based reminder method which uses a remotely located geo-code database (through a remote server) in a specific manner to advantageously materialize the Necessary GPS-Setting Element (i.e., manage to preset a set of GPS coordinates of an associated geographical location with a respective reminder text, as to a displayed reminder entry).

14. That above-stated *specific manner* as claimed includes, *inter alia*, one or more user-interfaces (which includes one or more specific user-interface elements) *specifically* designed to enable the user to input via text one or more identifiers that collectively uniquely identify a geographical location (intended by the user to be associated with the respective reminder text), *as specifically taught in the specification of the Asserted Patent*, so that the communication device ends up receiving, from the remotely located geo-code database, a set of GPS coordinates of the intended geographical location (which is uniquely identified by the one or more inputted identifiers) and subsequently using the received set of GPS coordinates to materialize the Necessary GPS-Setting

Element (i.e., manage to preset the received set of GPS coordinates as the set of GPS coordinates of the associated location with the respective reminder text, as to the displayed reminder entry).

### **THE PRIOR ART OF THE ASSERTED PATENT**

15. In the first aspect about prior art, an above-described location-based reminder, as a concrete end objective, was already in the prior art at the time of the March 11, 2008 priority date of the Asserted Patent. For example, the prior art reference Blass et al. (U.S. Published Patent Application 2006/0058948 – hereinafter “Blass”), which was published *two years prior to* the priority date of the Asserted Patent, disclosed such a location-based reminder scheme available in a smart communication device with, *inter alia*, an on-board GPS module and a user-interface-enabled display.

16. As to the Necessary GPS-Setting Element, Blass’s location-based reminder scheme uses an approach that is rather burdensome, and thus disadvantageous, as conceivable from a user’s standpoint nowadays. Blass’s scheme *requires* that a user be contemporaneously physically at the intended location with his/her communication device (having an on-board GPS module) on hand when materializing (i.e., performing) the Necessary GPS-Setting Element as to a particular location-based reminder entry in the communication device, or the Necessary GPS-Setting Element simply *cannot* be materialized (i.e., the set of GPS coordinates of the associated location as to that particular reminder entry simply *cannot* be set).

17. According to Blass’s teaching, while the user and the communication device are physically at the intended location, the communication device *first* contemporaneously captures the set of GPS coordinates of the intended location through its on-board GPS module, and then *pre-set* the captured set of GPS coordinates as the set of GPS-coordinates of the associated (intended) location

of that particular location-based reminder entry<sup>2</sup>. Thereafter, the communication device would then be able to, via Blass's scheme, invoke the reminder function (i.e., display a respective reminder text) as to the reminder entry the next time when the user is at or near the associated location.

18. Thus, as to the Necessary GPS-Setting Element, Blass's scheme *entirely* relies on the on-board GPS module of the user's communication device to get this necessary element materialized. However, such an "on-board-GPS-based" approach, as is entirely relied on by Blass, is conceivably burdensome to a user from today's standpoint, since it undesirably *requires* the user either be contemporaneously at the intended location, or first *travel* to the intended location regardless of *how far away the user is being from the intended location*, before the Necessary GPS-Setting Element can be materialized (i.e. manage to preset a set of GPS coordinates of the intended location so as to achieve associating the intended location with a respective reminder text as to the host reminder entry).

19. That is, if at a particular time when a user is neither contemporaneously physically at an intended location, nor having the luxury to first travel to that same intended location, then the Necessary GPS-Setting Element simply cannot get materialized at that particular time, thereby undesirably causing the user to be *unable to* set up a location-based reminder with respect to the intended location at that particular time.

20. The observation that Blass's "on-board-GPS-based" approach is burdensome to a user, is made in *hindsight from today's standpoint due to that nowadays users already have seen or*

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<sup>2</sup> The pre-setting of the set of GPS-coordinates of an associated geographical location with the respective reminder text (as to that particular reminder entry) is done completely transparent to the user through the use of the set of UIs (user interfaces) displayed on the communication device, where the user is prompted to input a text name, to represent *the set of GPS-coordinates of the associated contemporaneous location* (preset by the communication device using the captured by the on-board GPS module), and therefore to represent *the associated contemporaneous location*. This enables the user, from then on, only sees that location-representing text name when viewing, or otherwise using, that particular location-based reminder entry.

*experienced modern location-based reminder schemes like the Accused Software Product.* However, from Blass’s standpoint (or any user’s standpoint for that matter) *at the time back when the Blass patent application was initially filed*, its approach was rather complete, adequate, and advantageous. This is indicated by *the fact* that Blass did not even bother to mention or allude to, or otherwise teach or suggest, any other possible approach whatsoever in connection with the Necessary GPS-Setting Element, much less suggested that its “on-board-GPS-based” approach is something that may need to be, or better be, replaced by, e.g., another approach of a wholesale different nature, such as a *geocode-database-based approach*, as is claimed in the Asserted Patent, and is *used in the Accused Software Product*, in connection with the same Necessary GPS-Setting Element .

21. In the second aspect about prior art, a remotely located geo-code database – which, in simple terms, is a database that stores both (i) sets of GPS coordinates and (ii) mapped contact information (such as address, phone, and etc.), as to a collection of respective physical geographical locations, and which is capable of retrieving and returning, upon receiving a text inquiry, either or both (i) respective sets of GPS coordinates and (ii) respective contact information, as to one or more matching respective geographical locations – was available in the prior art at the March 11, 2008 priority date of the Asserted Patent. For example, the prior art reference Jayanthi (U.S. Patent No. 8,700,310) discloses such a remotely located geo-code database.

22. The prior art, however, does not appear to grasp, or otherwise appreciate, any use of a remotely located geo-code database in any way, shape, or form by a “location-based-reminder” scheme, such as the scheme specifically disclosed in Blass. As an example, Jayanthi, which is only related to navigation, is completely irrelevant to a location-based reminder scheme despite disclosing a remotely located geo-code database and availability thereof. As another example, Blass, which discloses a location-based reminder scheme, does not even mention a remotely located geo-code

database, much less teach or suggest any possible use thereof, let alone teach or suggest using same in any specific manner, in connection with any aspect of its location-based reminder scheme.

### **PROSECUTION AND EXAMINATION RELATED TO THE ASSERTED PATENT**

23. The patent application (hereinafter “the Asserted Patent Application”) issued as the Asserted Patent is a continuation application derived from the Original Patent Application (filed on March 11, 2008), from which the Asserted Patent claims priority. Therefore, the Asserted Patent and the original patent application share practically identical respective specifications.

24. The Asserted Patent Application received from Examiner Gebresenbet of the USPTO a First Action Allowance (i.e., a first action without any rejection of claims), which led to the issuing of the Asserted Patent. Examiner Gebresenbet decided to issue the First Action Allowance (FAA) for good and fair reasons. The main reason is due to, as to *the prosecution* of the Original Patent Application, the *extensive and lengthy nature* of its process as well as *the dispositive nature* of its result, both of which Examiner Gebresenbet was intimately knowledgeable of and familiar with, given that Examiner Gebresenbet was in fact *also* the single Examiner that conducted the patent examination throughout the *entire* prosecution of the Original Patent Application.

25. With respect to the prosecution of the Original Patent Application, Examiner Gebresenbet and the applicant (which is the predecessor entity of Mira as to intellectual property rights associated with the practically identical disclosure shared by both the Asserted and Original Patent Applications) had gone *to extensive length* in litigating over the single found-to-be dispositive issue (hereinafter referred to as “the Single Dispositive Issue”) of that prosecution, namely, whether the primarily cited prior art reference Blass (as discussed above) and other secondarily cited prior art references (including the Myllymaki reference and the above-discussed Jayanthi reference), taken singly or in combination, disclose, teach, or suggest any use of a remotely located geo-code database



in materializing the Necessary GPS-Setting Element of a location-based reminder scheme, which is *the key and essential* aspect of the method claimed in the issued claims of the Original Patent Application.

26. The differences in respective positions (with respect to the Single Dispositive Issue) of that prosecution between Examiner Gebresenbet and the applicant, was eventually settled by the intra-USPTO appeal Decision issued by a panel of Administrative Patent Judges (APJ) of the Patent Trial and Appeal Board (PTAB) of the USPTO. In the appeal Decision, the APJ panel decided the Single Dispositive Issue, *without any equivocation*, in the resounding NEGATIVE in favor of the applicant, thereby decisively resolving the Single Dispositive Issue, and *therefore the patentability question*, of that prosecution once for all in favor of Mira (which is the successor to the applicant of Original Patent Application as to intellectual property rights associated with the practically identical disclosure shared by both the Asserted and Original Patent Applications).

27. With respect to the claims of the Asserted Patent Application, the same Single Dispositive Issue remains in relation to prior art, including, *inter alia*, the cited Blass, Myllymaki and Jayanthi references. This is because same as, or similar to, the claims of the Original Patent Application (which had already been successfully prosecuted and issued), the claims of the Asserted Patent Application likewise incorporate, in the location-based reminder method claimed therein, *its key and essential*, and likewise *dispositive* (in relation to the prior art), use of a remotely located geo-code database in materializing the Necessary GPS-Setting Element of the claimed method<sup>3</sup>.

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<sup>3</sup> The main difference between the set of issued claims of the Asserted Patent Application and the set of issued claims of the Original Patent Application is that with respect to the respective “specific manner” in which a remotely located geo-code database is used in the respective materializing of the Necessary “GPS-Setting” Element, the former set of claims includes the use of UIs *specifically* provided to enable a user to input via text one or more identifiers that uniquely identify an intended geographical location, whereas the latter set of claims do not include the aforementioned *specific* use of those *specifically-provided* UIs in connection with the former set of claims.

28. Examiner Gebresenbet was presumably, and indeed apparently, intimately knowledgeable of, and familiar with, that above-described similarities in connection with the Single Dispositive Issue, particularly as to the dispositive nature thereof, after having been participating at full length the above-described extensive and lengthy prosecution process of the Original Patent Application, specifically as to the resolving of the Single Dispositive Issue.

29. Accordingly, as to the prosecution and examination of the claims of the Asserted Patent Application, which are the issued claims of the Asserted Patent, Examiner Gebresenbet's decision to issue the First Action Allowance (FAA) should be regarded fully informed and should therefore come as no surprise.

**INFRINGEMENT OF GOOGLE'S ACCUSED SOFTWARE PRODUCT**

30. Details of the specific correspondence between the elements of the Asserted claims of the Asserted Patent and the elements of, or otherwise used by, the infringing method practiced by the Google's Accused Software Product, is demonstrated in the Claim Chart attached hereto as Exhibit B.

**SOLE COUNT**  
**(Infringement of The Asserted Patent)**

31. Mira incorporates the foregoing paragraphs as if fully set forth herein.

32. Google has made, used, sold, offered for sale, and/or imported one or more products (e.g., smartphones) incorporating the Accused Software Product, without authorization, and thereby directly infringed, literally and/or under the doctrine of equivalents, the Asserted Patent, including one or more of the Asserted Claims, under 35 U.S.C § 271 (a). Google's infringement is on-going.

33. Google has had knowledge of and notice of the Asserted Patent and its infringement at least since January 18, 2021 (hereinafter "the Notice Date"), the date on which Google received Mira's cease and desist letter.

34. Google has induced others to directly infringe the Asserted Patent under 35 U.S.C. § 271 (b). Third parties, including smartphone manufacturers, have infringed, and continue to directly infringe, one or more of the Asserted Claims of the Asserted Patent under 35 U.S.C. § 271 (a) by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, smartphones which are pre-installed with the Accused Software Product.

35. To the extent Google continues to supply Accused Software Product after the Notice Date, Google is inducing infringement of one or more of the Asserted Claims of the Asserted Patent under 35 U.S.C. § 271(b). Google is actively, knowingly, and intentionally inducing infringement of the Asserted Patent by: (a) pre-installing the Accused Software Product on an Android smartphone, and (b) making the Accused Software Product available, in at least Google's Play Store and Apple's App Store, for download and installation by an Android smartphone or an IOS smartphone (such as an iPhone), after the Notice Date.

36. Acts (a) and (b) of Google are performed with the knowledge and specific intent that third parties, including users of Android and IOS smartphones, would run and operate the Accused Software Product on a respective smartphone, resulting in the respective smartphone practicing the method claimed in one or more of the Asserted Claims and as a result infringing the Asserted Patent.

37. Acts (a) and (b) of Google are performed also with the knowledge and specific intent to encourage and facilitate the infringement through the dissemination of the Accused Software Product resulting from the placing of those pre-loaded smartphones into the stream of commerce as well as the downloading and installing of the Accused Software Product by unwary users onto their respective smartphones.

38. Google's inducement under 35 U.S.C. § 271 (b) is ongoing.

39. Google has contributed to direct infringement of the Asserted Patent under 35 U.S.C. § 271 (c). Google, through Acts (a) and (b), has contributed to the direct infringement of one or more of the Asserted Claims of the Asserted Patent by users of the Accused Software Product, which does not appear to have any substantial use other than the use that infringes the Asserted Patent. Google's contributory infringement under 35 U.S.C. § 271 (c) is ongoing.

40. Google has had knowledge of and notice of the Asserted Patent and its infringement since no later than the Notice Date.

41. Google's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Google.

42. Google's direct and indirect of the infringement of the Asserted Patent is, has been, and continues to be, willful, intentional, deliberate, and/or in conscious disregard of Mira's rights under the Asserted Patent.

43. Mira has been damaged as a result of the infringing conducts of Google alleged above. As such, Google is liable to Mira in an amount which adequately compensates it for such infringing conducts, an amount which cannot be less than a reasonable royalty, together with interest and costs as will be decided by this Court under 35 U.S.C. § 284.

44. Mira will continue to suffer damages and irreparable harm unless Google is restrained and enjoined by this Court, pursuant to 35 U.S.C. § 283, from further infringement, direct and/or indirect, of the Asserted Patent.

#### **PRAYER FOR RELIEF**

45. WHEREFORE, Mira respectfully prays for that this Court find in its favor and against Google and that this Court grant Mira the following relief:

(i). Judgment that one or more of the Asserted claims of the Asserted Patent has/have been infringed, either literally and/or under the doctrine of equivalents, by Google;

(ii). A permanent injunction enjoining Google and its officers, directors, agents, affiliates, employees, departments, subsidiaries, parents, and all others acting in concert therewith from infringement of the Asserted Patent; and/or, an award of a reasonable royalty for the past, on-going, and future infringement of the Asserted Patent by such entities.

(iii). Judgment that Google account for and pay to Mira all damages to and costs incurred by Mira due to Google's infringing activities and other conduct(s) alleged of herein, including an award of all increased damages to which Mira is entitled under 35 U.S.C. § 284;

(iv). That this Court declare this an exceptional case and award Mira its attorneys' fees and costs in accordance with 35 U.S.C. § 285;

(v). Pre-judgment and post-judgment interest on the damages caused to it by reason of Google's infringing activities and other conduct(s) alleged of herein; and

(vi). Such other and further relief as this Court may deem just and proper under the circumstance.

#### **DEMAND FOR JURY TRIAL**

Plaintiff Mira hereby demands a trial by jury of all issues so triable.

Dated: March 25, 2021

Respectfully submitted,

/s/ Jundong Ma

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